which, as is well known, as has been much illuminated by the studies of Professor Howell himself. The chapter on internal secretions is comprehensive and satisfying, and contains an account of those winged chemical messengers, or hormones, now believed to be of major importance in the correlation of the metabolic activities of the body. To the chapter on the physiology of reproduction the author has added a discussion of growth and senescence, based upon the observations and suggestive speculations of Rubner on energy requiements and growth mechanism. There are many other additions throughout the book, all of which serve to maintain it as it has been, in the forefront of publications on physiology. A. K.

DIATHESIS AND OCULAR DISEASES. BY A. MAITLAND RAMSAY, M.D., Ophthalmic Surgeon to the Glasgow Royal Infirmary. New York: William Wood & Co., 1909.

IN these lectures the author makes a plea for a return, to a certain extent, to older views, current before the days of bacteriology, modified, of course, by the results of modern research. The keynote may be summed up in his statement: "Too much attention is being paid to the germ, and far too little to the soil on which it falls."

Three main diatheses are considered: The neurotic, the scrofulous, and the arthritic. Under the former are classed the protean complaints, when there is little amiss with the refraction or muscle balance. Scrofula, which the author denies to be synonymous with tuberculosis, is held responsible for the phlycten. Under the arthritic, with two subdivisions, the gouty and rheumatic, and of which the ocular manifestations may be the only external sign, are described inflammations of the conjunctiva and sclera, uveal tract, retina and optic nerve, toxic amblyopia, and glaucoma —a pretty respectable number of pathological processes, surely. Influenced by such views, it goes without saying that general treatment, medicinal, diathetic, regimen, etc., is accorded a large place. The special means recommended against the ocular maladies themselves do not differ much from those commonly employed. The chapter on glaucoma, which makes up one-third of the entire book, is also the best. The author thinks it doubtful whether medical resources ever prevent the downward trend of the disease. He believes that clinical experience teaches that in every form of genuine glaucoma iridectomy is the safest procedure, and the earlier the operation is performed the more satisfactory the result. He thoroughly agrees with Priestley Smith's recommendation, that the sclerotic should be punctured behind the lens preliminary to iridectomy. Of the newer operative methods, some are simply mentioned, and others omitted entirely, as not having come within the experience of the author. T. B. S.

PROGRESS

OF

MEDICAL SCIENCE.

MEDICINE.

UNDER THE CHARGE OF

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The Leukocyte Picture in Variola.—KAMMERER (*Deut. Arch. f. klin. Med.*, 1910, xcix, 354) has studied the blood of four cases and finds that a moderate leukocytosis (10,000 to 30,000) occurs at least as soon as the vesicular stage, and subsides very gradually with frequent slight fluctuations lasting well into convalescence. This leukocytosis is due to an absolute increase in the lymphocytes, which occurs as early as the fifth day, and which can still be made out three months after the infection. Polymorphonuclear leukocytes are relatively decreased in number (averaging 42.2 per cent.). Their absolute number is on the average normal, though occasionally slightly increased. In severe cases a moderate number of myelocytes and of normoblasts occurs in the first few days. Large mononuclears, transitionals, eosinophiles, and mast-cells are present in normal numbers.

The Chemistry of the Heart Muscle in Cardiac Insufficiency.—C. VON RZENTKOWSKI (*Ztschr. f. klin. Med.*, 1910, lxx, 337) has made a distinct advance in the study of the cardiac muscle, by examining chemically portions of the right and left ventricles in a series of non-cardiac and of cardiac cases. The percentage of N (from which the protein was calculated), of sodium chloride, and of water were determined. In normal hearts there is a constant difference between the right and left ventricle. The right heart muscle contains about 95 per cent. as much protein, 92 per cent. as much total solids, and nearly 150 per cent. as much NaCl as the left. The variation is not large. In a series of cases with dilatation of the right ventricle and relatively slight disease of the left, the right ventricle showed marked, the left slight, decrease in dry weight and protein, with definite rise in NaCl content. The NaCl content of these dilated right ventricles was 171 per cent. of that of the normal right ventricle, while the normal difference between the right and left ventricular content (12 : 8) was here increased (13 : 8). In hypertrophy of the left ventricle, secondary to vascular changes, the muscle is slightly richer in protein, the dry weight is substantially unchanged, but the NaCl content is distinctly raised, though not as high as in the muscle of dilated hearts. The rise in NaCl content of the heart muscle is out of all proportion to that in the general tissues. It is not a mere œdema but an intracellular retention which goes parallel with weakening of the muscle fibre and of which it is a closer index than are morphological appearances. It may perhaps be an intoxication. At all events, the rise of NaCl content in hypertrophic cardiac muscle is very interesting, agreeing as it does with the tendency of hypertrophied muscle to dilatation and with the beneficial results of the NaCl-poor diets in cases of cardiac insufficiency.

Ptosis of the Cecum.—LARDENNOIS (*Presse médicale*, 1910, 419) calls attention to a case reported by Barnes, of Liverpool, of a boy, aged fifteen years, with all the signs of a very severe appendicitis. At operation an enormously dilated cecum was found which resembled a huge cyst. The appendix was normal. Cecostomy was performed and the boy recovered. This case was considered a dilatation of the cecum occurring without apparent cause. In contrast to this, there are cases of chronic dilatation of the cecum and subsequent ptosis where the musculature has atrophied and the cecum has doubled on itself or is in the pelvis, or some other malposition. In these cases, after an indiscretion of diet, or other cause, crises of pain and feeling of distention occur in the right iliac fossa. These crises appear often, and are very acute. The pain is poorly localized; the situation is generally about McBurney's point. On examination of this region the wall of the cecum is usually palpable. Pressure exacerbates the pain by exaggerating the distention of the cecum or promoting contracture. If this pressure is from below upward, the pain is eased. The right lateral decubitis is usually painful; the left, or the ventral, favor emptying of the cecum and the patient instinctively takes these lateral positions. Palpation of the cecum gives the sensation of a soft fluctuating tumor like a vessel full of water. This tumor usually comes into contact with the abnominal wall almost down to Poupart's ligament. Lardennois' case, post mortem, showed a cecum 13 cm. long with a capacity of more than 700 c.c., compared with a normal average length of 6 cm. and capacity of 200 or 300 c.c. In 80 subjects examined, he found four other similar cases. Of 100 subjects examined by Alglave, in 17 the cecum was within the pelvis, and in 6, within the cul-de-sac of Douglas. Robinsion has reported 10 instances with the cecum in the pelvis and with a capacity of 600 c.c. or more. Lardennois believes the condition is more frequent than is recognized, that it occurs more frequently in women than in men, and more in Germany, and, in a general way, in those races which are great eaters. The stasis is progressive, and in time the general condition is very much affected. The patients suffer from malaise, are easily fatigued, restless, are troubled by any clothing about the abdomen; in fact, become actually invalids. They are nervous and hypochondriacal. Ptosis of the cecum which, as a rule, is only an inconvenience, may thus become a serious affection and deserve attention. These painful attacks have been ascribed to such affections as appendicitis, movable kidney, ovarian cyst, malposition of the uterus, adhesions, neuralgia, and neuroses. The pathognomonic sign of ptosis of the cecum is formulated by Lardennois as follows: When forcing the contents of the transverse and ascending colon toward the cecum, pain is produced in the right pelvic region. On the other hand, pressing the contents of the cecum toward the colon, without violence, causes disappearance of the pain. Aids to diagnosis are artificial dilatation of the large intestine and *x*-rays after bismuth ingestion. Medical therapeutics consists in a limited diet, disinfection of the intestines by lactic acid ferments and the use of laxatives; massage and gymnastics of the abdominal muscles are advised. Surgical intervention is indicated in two instances—first, if the condition is found during an appendix operation, when fixation of the cecum in the iliac fossa is advisable; second, when there is no appendicitis and the ptosis resists medical treatment and is severe enough to cause general disability. Then iliac fixation, or a plastic operation, or partial resection may be performed.

The Cammidge Pancreatic Reaction in 1475 Cases.—Since his last publication, in 1906, CAMMIDGE (*Proc. Royal Society of Medicine*, 1910, iii, 163) has examined 1500 samples of urine derived from 1475 cases, with special reference to this reaction. The method used is the same as described previously. Of 17 cases of acute and subacute pancreatitis, 13 gave a positive pancreatic reatcion. Six of these at operation showed an acute inflammation. In 3 the pancreatitis had been the sequel to an attack of mumps. In 859 cases of chronic pancreatitis the reaction was obtained 364 times; 40 times in 60 cases of stone in the common duct; 18 times in 7 cases of stone in the gall-bladder; 4 times in 10 cases of growth in the common duct; 103 times in 194 cases of intestinal catarrh; 42 times in 53 cases of catarrhal jaundice; 27 times in 50 cases of duodenal ulcer; 5 times in 47 cases of gastric ulcer; 8 times in 13 cases of sprue; 4 times in 6 cases of pernicious animia; 2 times in 11 cases of tuberculosis; 6 times in 8 cases of typhoid fever; and 14 times in 21 cases of cirrhosis of the liver and pancreas. All of these conditions Cammidge considered as causes of chronic pancreatitis. In 4 cases of pancreatic calculi the reaction was obtained 3 times; twice in 4 cases of pancreatic cyst and once in a case of pancreatic infantilism. In 73 cases of cancer of the pancreas 24 positive reactions were obtained. In a miscellaneous group, 461 of the 467 cases gave a negative pancreatic reaction. In the last group are specimens of urine from 50 presumably healthy individuals, none of which gave a positive pancreatic reaction. Cammidge believes that his experience in these five years confirms the claim that he made—that the reaction is clinically useful in its improved form. He does not think that it is pathognomonic or that taken alone it will enable one to form a correct opinion in every instance. But he does think that when the results of the examination of the urine are considered in conjunction with the clinical symptoms and an analysis of the feces, a trustworthy diagnosis is capable of being arrived at in nearly every case of pancreatic disease. As to the nature of the reaction, it is probably due to the destruction of some substance with a glyconucleoprotein content which yields a pentose on hydrolysis, and since the